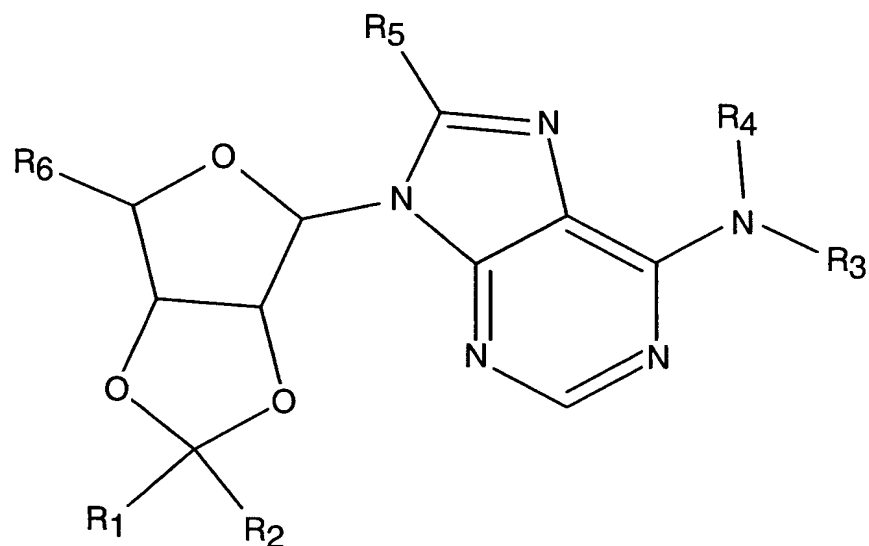
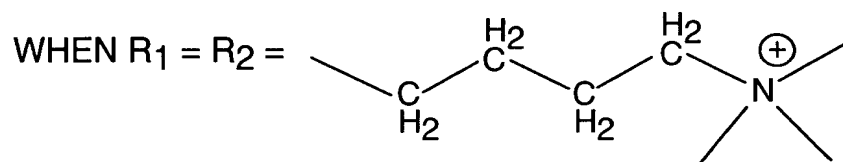


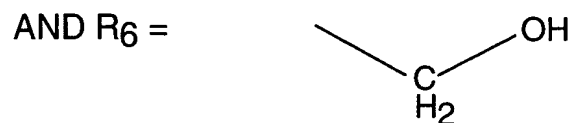
1/7



ADENOSINE CYCLIC KETAL (ACK)

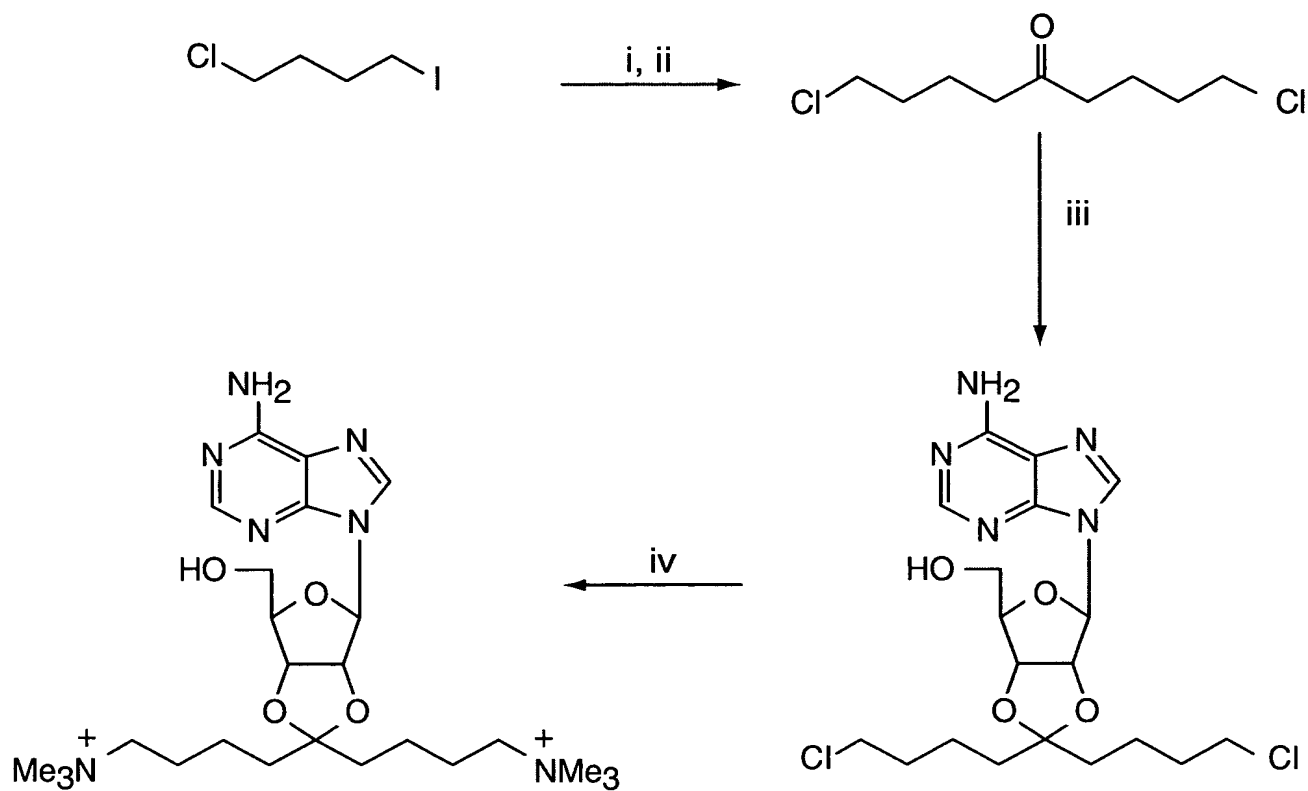


AND R_3, R_4 AND $R_5 =$ HYDROGEN



CHEMICAL STRUCTURE OF ADENOSINE CYCLIC KETAL (ACK) AND THE
CHEMICAL FORMULA OF THE COMPOUND NONAMETHONIUM
ADENOSINE CYCLIC KETAL (NONAMETHONIUM ACK).

FIG. 1A



The synthetic scheme for synthesizing nonamethonium adenosine cyclic ketal.

The reagents and conditions are: i) zinc dust, tetrahydrofuran (THF);

ii) N-methylpyrrolidine, CoBr_2 , carbon monoxide;

iii) adenosine, HCl/dioxane , $(\text{EtO})_3\text{CH}$, DMF; iv) 40% Me_3N in H_2O .

FIG. 1B

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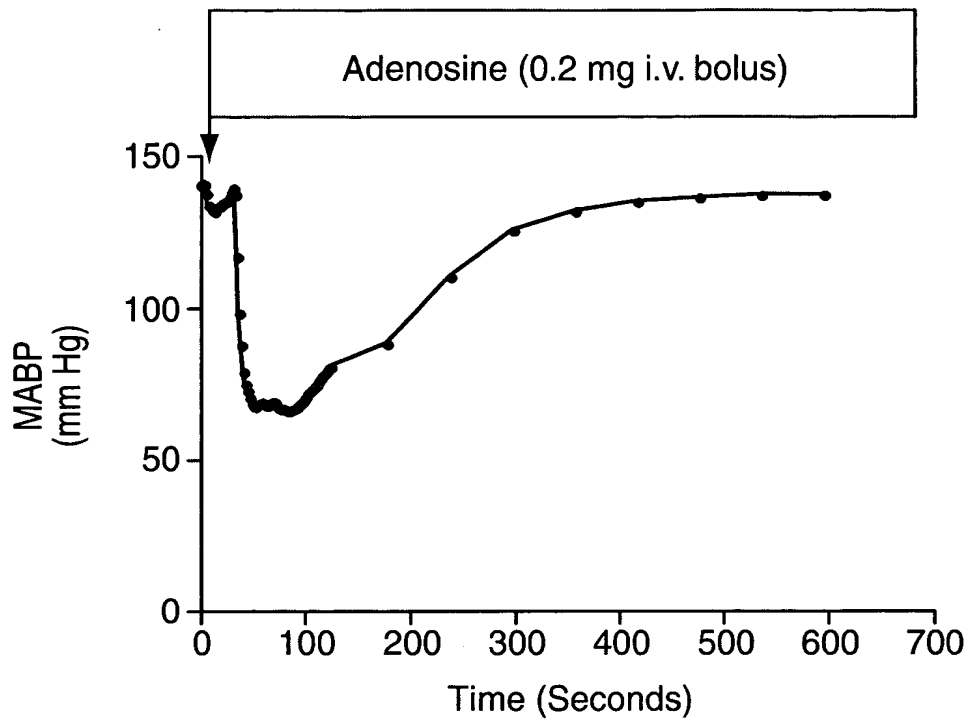


FIG. 2A

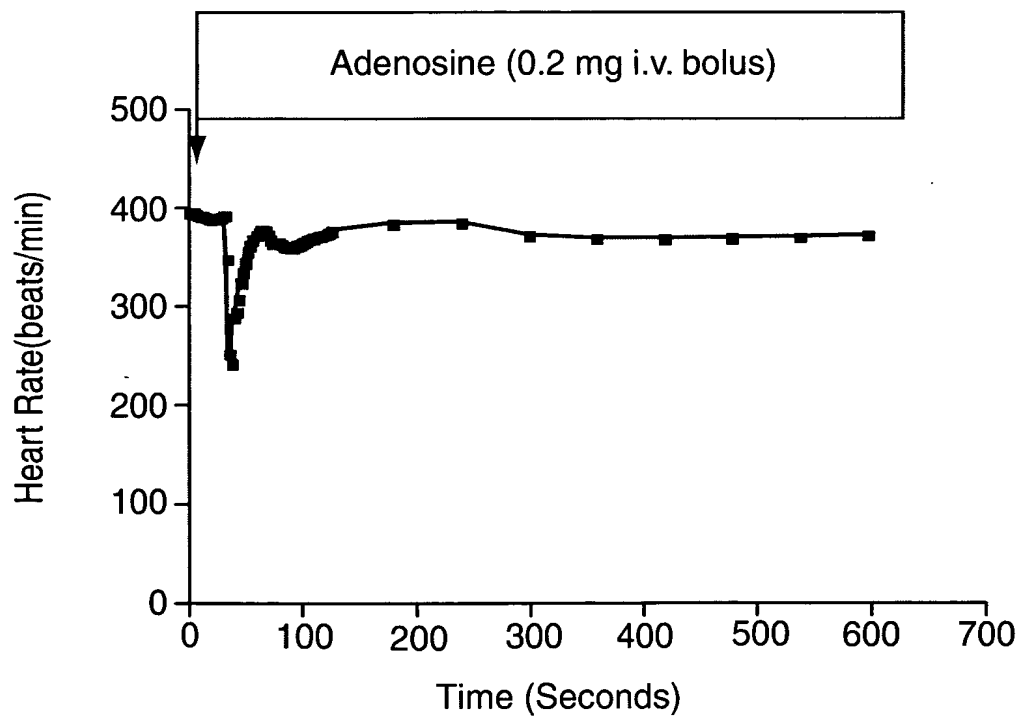


FIG. 2B

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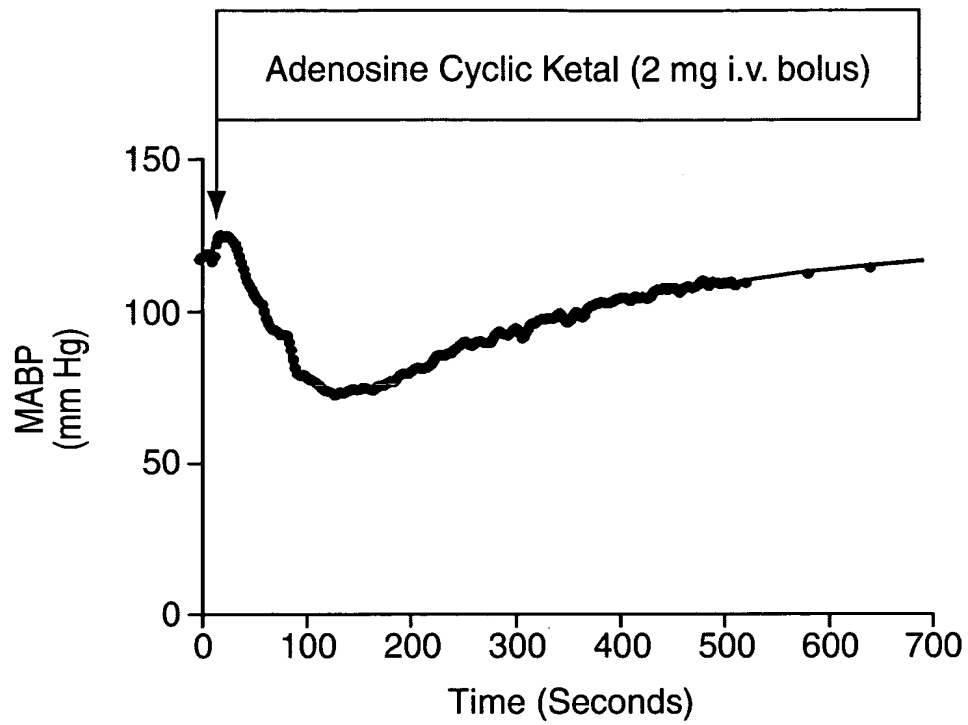


FIG. 3A

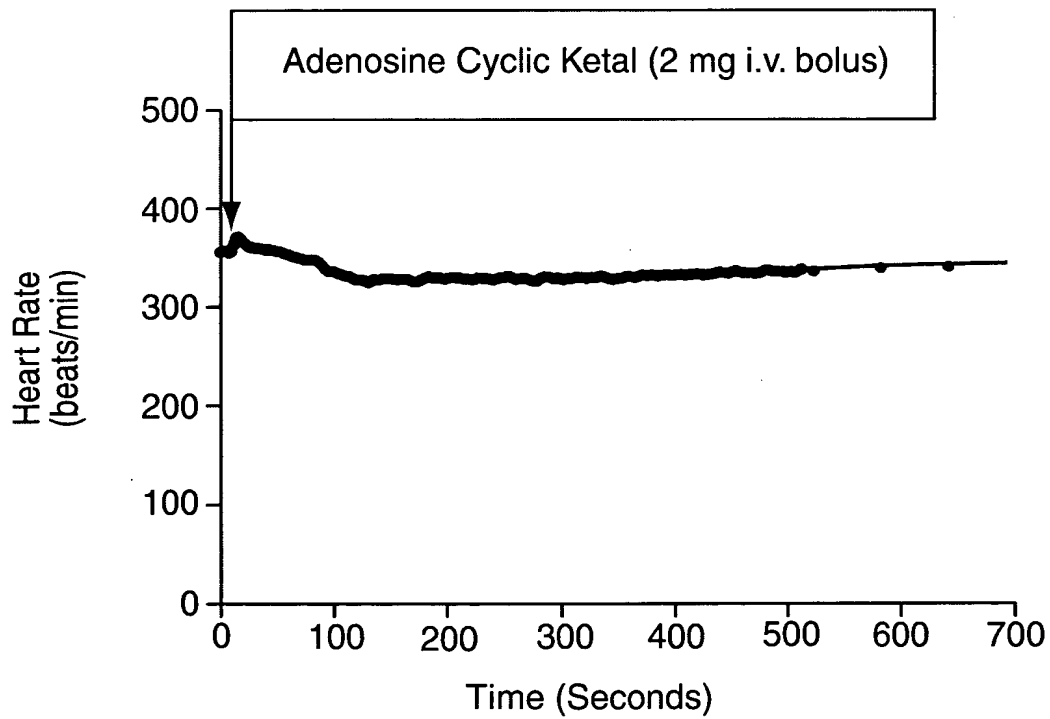


FIG. 3B

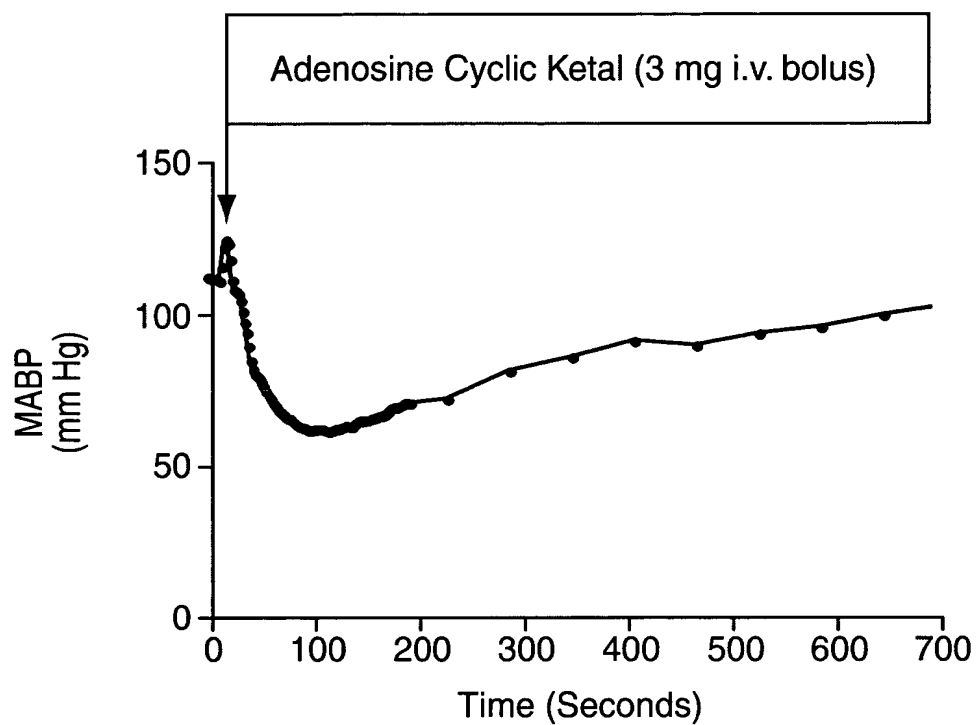


FIG. 4A

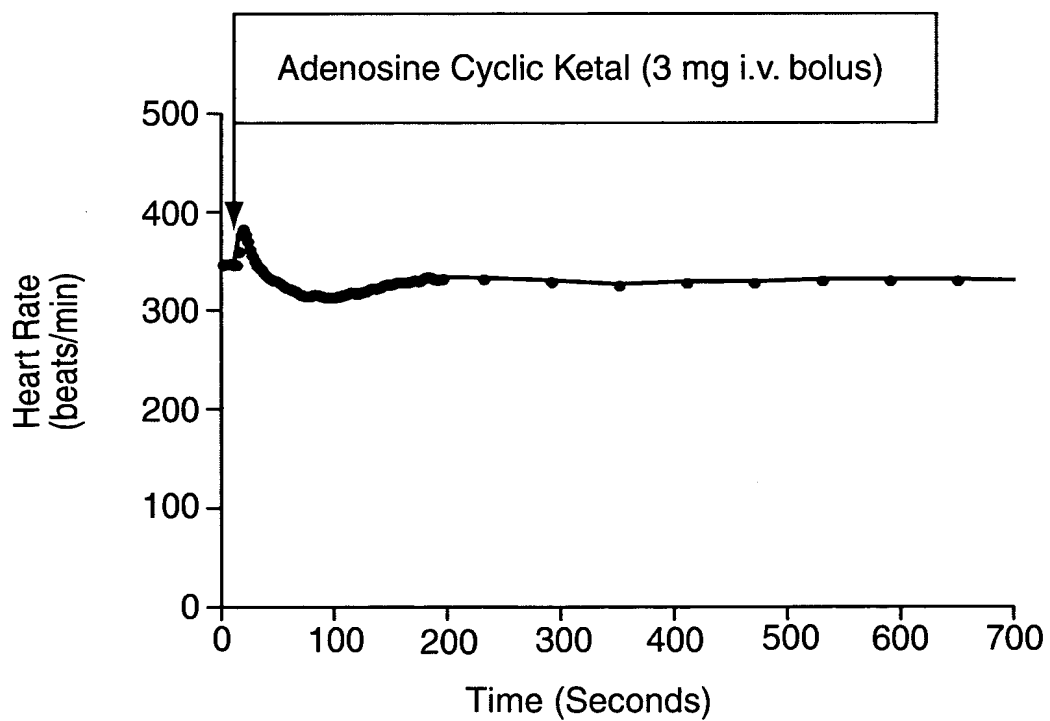


FIG. 4B

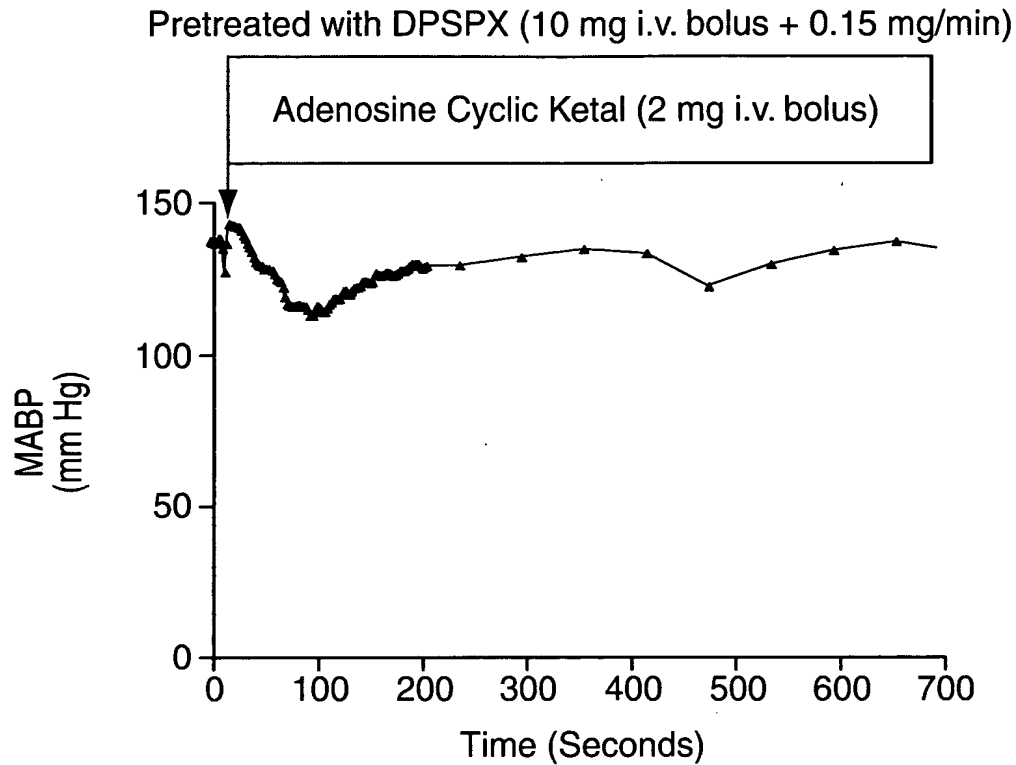


FIG. 5A

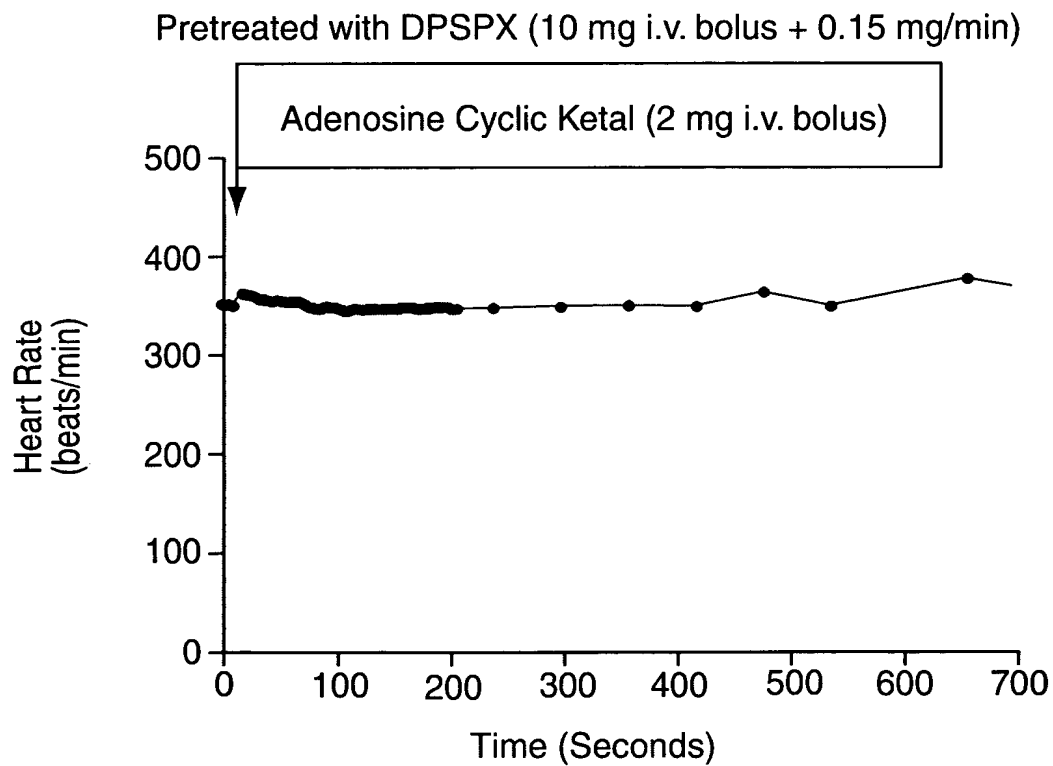


FIG. 5B

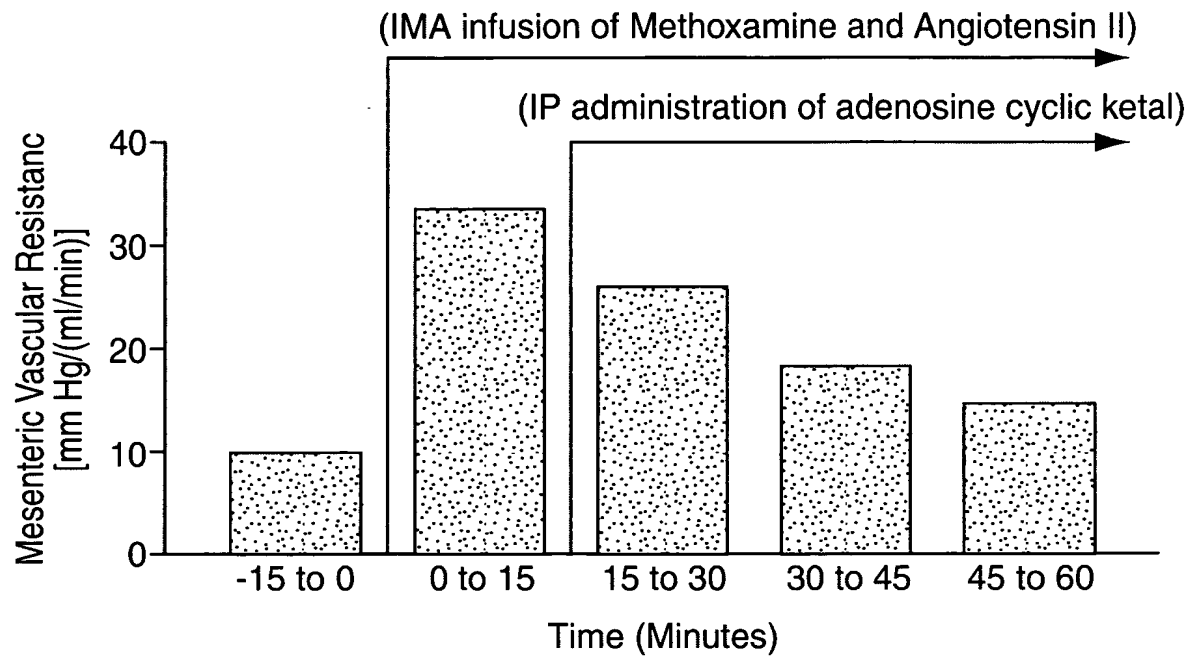


FIG. 6A

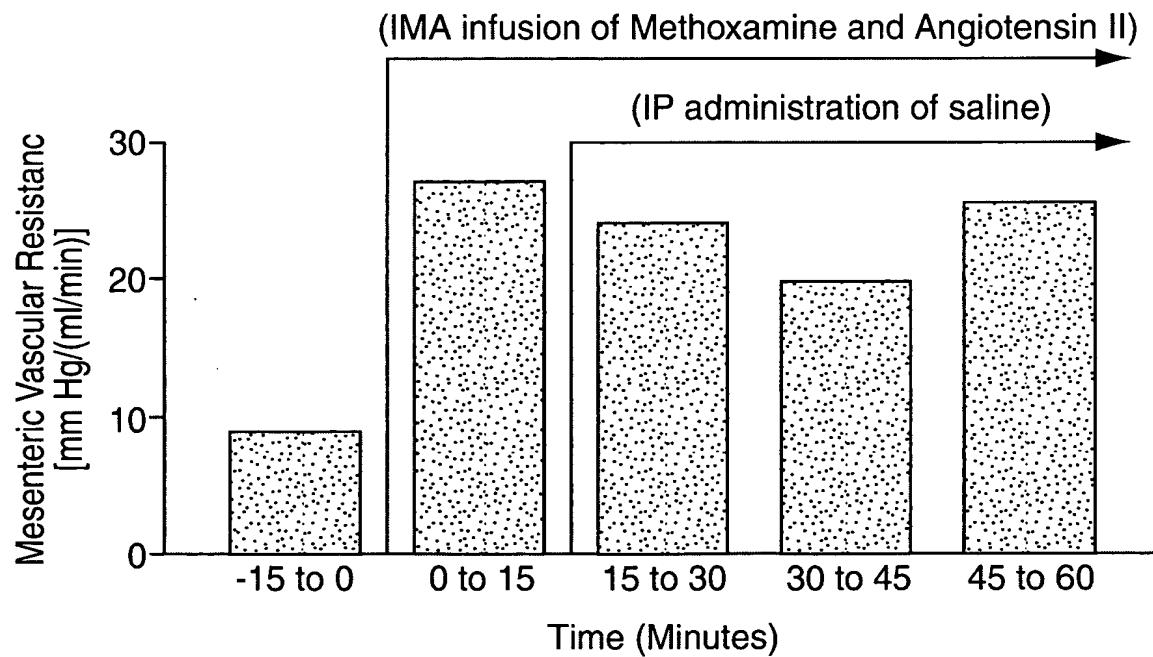


FIG. 6B